

Regulatory Section

Nursery Stock

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Purpose of the Nursery Stock section

The procedures outlined below are used to certify (1) trees and shrubs grown outdoors in a nursery and (2) Christmas trees grown as “balled and burlapped” nursery stock.



Trees and shrubs that have been continuously grown in a greenhouse do not require certification under the gypsy moth regulation. Trees and shrubs grown in hoop houses, which are grown outside during warm weather and then brought into the hoop house for winter, must be certified.

Operation under Compliance Agreements

If operating under CAs, nurseries and Christmas trees plantations will be able to ship [Regulated Articles](#) into a non-infested area. An example of a CA for a nursery or Christmas tree plantation is in [Appendix G](#).

Operating under CAs, workers at nurseries and Christmas tree plantations will do the following:

- ◆ Examine Regulated Articles according to a standardized procedure, if necessary
- ◆ Treat in a safe and effective manner all plants to be shipped, if necessary
- ◆ Treat in a safe and effective manner the surrounding area, if necessary
- ◆ Safeguard plants from reinfestation
- ◆ Complete the appropriate documents

On an as-needed basis, PPQ officers and/or State personnel will monitor the techniques, treatments, and documents of the cooperating establishments to ensure compliance.

Procedures for Small Lots

Small lots of regulated plants from a generally infested area must be inspected on a piece-by-piece basis by either (1) workers at the establishments under PPQ direction, (2) PPQ officers, or (3) State personnel. For example, piece-by-piece inspection is used for assembly-yard inspection of articles such as collected native plant material.

During a piece-by-piece inspection, inspect all bark including the crevices where egg masses may be attached. When egg masses or larvae are found, treat either by (1) physical removal after spraying with Golden Natur'l Spray Oil or (2) insecticide application. The preferred treatment for egg masses will be physical removal after spraying with Golden Natur'l Spray Oil. (See the instructions in the subsection on **Treatments**).

Procedures for Large Lots

Large lots of regulated plants from a generally infested area are usually not inspected on a piece-by-piece basis. Large lots of regulated plants are treated by (1) treating the nursery or Christmas tree plantation as a Hazardous Site, (2) spraying the regulated stock with an insecticide, or (3) fumigating the regulated stock.

Nurseries and Christmas Tree Farms as Hazardous Sites

If establishments frequently ship nursery-grown trees and shrubs or Christmas trees out of the generally infested area, then the establishments will be treated as hazardous sites. See instructions in Hazardous Sites section for (1) inspecting premises and surrounding areas and (2) certifying establishments with or without treatment.

Spray Treatments for Large Lots

For larvae on plants in large lots, the following insecticides and others are registered for spray treatments: acephate, carbaryl, diflubenzuron, phosmet, spinosad, and tebufenozide.

See **Appendix H** for more information on these insecticides.

Fumigation for Large Lots

See the *PPQ Treatment Manual* for procedural instructions on conducting methyl bromide fumigations.



Some evergreen species, especially narrow-leafed evergreens and some azaleas, may be injured by methyl bromide fumigation. Plants in a dormant state are more tolerant to fumigation.

Trees and shrubs can be fumigated with methyl bromide at natural atmospheric pressure (NAP) using either a short or long exposure schedule. Do not use methyl bromide containing chloropicrin.



APHIS will not be responsible for damage of any type that results from a fumigation or an attempted fumigation.

TABLE 11-1: MB Treatment Schedule (at NAP) for egg masses of *Lymantria dispar* (gypsy moth) on deciduous, dormant woody plants (except for broadleaved genera such as *Azalea*, *Berberis*, *Camellia*, *Ilex*, and *Photinia*)

Temperature	Dosage Rate (lb/1,000 ft ³)	Minimum Concentration Readings (oz.) At: All others
90-96°F	2 lbs	2 hrs
80-89°F	2.5 lbs	2 hrs
70-79°F	3 lbs	2 hrs
60-69°F	3 lbs	2.5 hrs
50-59°F	3 lbs	3 hrs
40-49°F	3 lbs	3.5 hrs

This table is similar to treatment T201-d-1 in the *Treatment Manual*.

TABLE 11-2: MB Treatment Schedule (at NAP) for egg masses of *Lymantria dispar* (gypsy moth) on dormant evergreens (including conifers) and certain broadleaved genera such as *Azalea*, *Berberis*, *Camellia*, *Ilex*, and *Photinia*

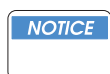
Temperature	Dosage Rate (lb/1,000 ft ³)	Minimum Concentration Readings (oz.) At:
90-96°F	1.5 lbs	2 hrs
80-89°F	2 lbs	2 hrs
70-79°F	2.5 lbs	2 hrs
60-69°F	2.5 lbs	2.5 hrs
50-59°F	2.5 lbs	3 hrs
40-49°F	2.5 lbs	3.5 hrs

This table is similar to treatment T201-b-1 in the *Treatment Manual*.

TABLE 11-3: MB Treatment Schedule at NAP (chamber or tarpaulin) for egg masses of *Lymantria dispar* on cut conifer Christmas trees

Temperature	Dosage Rate (lb/1000 ft ³)	Minimum Concentration Readings (oz.) at:				
		0.5 hr	2.5 hrs	3 hrs	4 hrs	4.5 hrs
75°F or above	1.5 lbs	18	12	—	—	—
70-74°F	2 lbs	24	16	—	—	—
60-69°F	2.5 lbs	30	—	24	—	—
60-69°F	3 lbs	36	24	—	—	—
50-59°F	3 lbs	36	—	—	24	—
50-59°F	4 lbs	48	32	—	—	—
40-49°F	3.5 lbs	42	—	—	—	28
40-49°F	5 lbs	60	40	—	—	—

This table is similar to treatment T313-d-1 in the *Treatment Manual*.



ON PINE: If treating pine Christmas trees for both gypsy moth egg masses and the pine shoot beetle, use the schedule for the pine shoot beetle since it is more potent.